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**Acme-Cleveland
Corporation
1972
Annual
Report**

Financial Highlights

	YEAR ENDED SEPTEMBER 30	
	1972	1971
Net Sales	\$96,001,000	\$81,358,000
Earnings (Loss) before Income Taxes	6,057,000	(1,008,000)
Income Taxes	2,879,000	(430,000)
Net Earnings (Loss)	3,178,000	(578,000)
Net Earnings (Loss) per Share83	(0.15)
Dividends per Share80	.80

Our business is productivity



Last year a precision parts manufacturer installed a six-spindle Acme-Gridley bar machine equipped with Namco controls and Cleveland Twist Drill cutting tools. Production of parts increased, and machining costs per part dropped 60 percent. Similarly, a customer's foundry production line designed and built by Shalco Systems cut operating costs 36 percent in the first year of operation.

These are not isolated examples. Every type of Acme-Cleveland product—expandable cutting and threading tools, machine tools, foundry equipment, controls and combinations of these products designed as production systems—has a proven record of cost-cutting productivity.

Cleveland Twist Drill, National Acme, Shalco Systems, Namco Controls and Acme-Cleveland Development Company—the operations that now form Acme-Cleveland Corporation—have been meeting industry's need for greater value and productivity starting in 1876. Acme-Cleveland products are sold to every major industry in the U.S. and in over 80 countries abroad. Acme-Cleveland's more than 4,900 skilled people are trained and eager to deliver productivity in the form of basic technology, engineering and service, as well as quality products.

This report, in addition to operating results for 1972, shows how Acme-Cleveland people and products deliver the productivity needed in the fight against rising costs.

Report to Shareholders

Acme-Cleveland's most recent fiscal year, which ended September 30, 1972, reflected our partial recovery from the previous one, a year marked by recession and strikes. Net sales increased from \$81,358,419 to \$96,001,120, and financial results improved from a net loss of \$577,559 to a net profit of \$3,177,604. This represents a net profit of \$.83 per share as compared with a net loss of \$.15 per share the preceding fiscal year.

During this same period the overall economy of the United States performed well. Business activity measured by physical volume expanded at a 7.2 percent rate, while the rate of price increases subsided to 2.7 percent. Historians will be debating for years whether this was because of or in spite of the "New Economic Program." In any event, the recent expansion of overall business activity has been accompanied by notable increases in real personal income, profits and productivity. The demand for capital goods, consumer durable goods, passenger cars and trucks strengthened during 1972. After having declined for four straight years, commercial aircraft production leveled out. As a consequence, sales of and profits from our off-the-shelf items and many of our items with short lead times improved, while our backlog of long lead time items increased sharply. In short, except for our European operations, 1972 turned out to be a substantially better year for us than 1971. During 1973 we expect business to improve in Europe as well.

Much of our corporation's progress during the past fiscal year is recorded on other pages of this report. In this short message I should like to highlight two aspects of this year—one financial and the other technical. Our balance sheet was markedly strengthened through the reduction of net long-term debt by \$5,459,000, while at the same time we maintained a strong working capital position. Furthermore, we broadened the base of our corporation by

acquiring a patternmaking company in Germany and by purchasing a 140,000 square foot plant in Cynthiana, Kentucky. This latter facility will make possible additional corporate growth while reserving our facilities in Cleveland for operations which require closer contact with engineering and administrative personnel.

Of still greater consequence to the future of our corporation was the decision to consolidate all our research and development activities under a single roof and to acquire a fine modern facility in Highland Heights, Ohio for this purpose. We have taken these steps and have formed the Acme-Cleveland Development Company.

Our corporation and its predecessor companies have grown and prospered over the past 96 years principally because they have worked hard at trying to help customers both to improve the quality of the products they make and to reduce the cost of producing these products. The operating divisions of Acme-Cleveland have many people with complementary technical skills and innovative abilities. By organizing the new research and development company we are confident that the development of new, profitable products, methods and production systems will be accelerated.

We pride ourselves on the productivity of our products. Essentially that's our business. But productivity encompasses more than this single concept. It includes the quality and the design of the equipment we use in turning out our products. It includes the skill with which this equipment is used so that our products can be priced competitively. For the same reason it includes the ability and willingness of our employees to use this equipment at peak efficiency. Finally, it includes the attitudes and costs in the communities in which our factories are located.

Managers have an obligation to preserve the capital which is entrusted to them. It's a

scarce commodity. They have an obligation to help make it grow. That is why they must make sure their products are of the highest quality and attractively priced. To do so they must find or design the most productive equipment and develop the most efficient methods for manufacturing their products; they must retain the services of highly skilled employees who are proud of their jobs and who work hard to keep them; and they must make sure they are wanted in the communities in which their places of business are located. To fail to do so is to court disaster.

We are living in an era of great economic fallacies. Perhaps the greatest is that prosperity is automatic; therefore, one can rearrange the social order for political purposes as one sees fit, and the horn of plenty will continue to spew out goods and services in ever increasing abundance. A second fallacy is that progress consists of negotiating less and less work for more and more wages and benefits. A third is that the best way to contain inflation at the peak of a business cycle is to discourage investment in new and more productive capital equipment. These fallacies contradict all the lessons of history. The only process by which man's standard of living can be improved and inflation held in check is, and always will be, the production of more and better goods and services at lower unit costs.

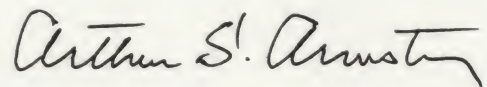
1973 promises to show noticeable improvement over 1972 as far as the volume of real activity is concerned. Durable goods production is expected to increase strongly. However, prospects on the inflation front are not as clear. The anticipated further rise in real activity, of itself, will tend to increase the upward pressures on costs and prices, as will another sizable Federal deficit. Furthermore, the large number of labor contracts up for negotiation makes it far from certain that recent progress in moderating labor settlements can be con-

tinued. It is difficult to escape the conclusion that it will be much harder to moderate inflation than was the case in 1972.

On this occasion a year ago I wrote, "It will take the very best efforts of business, labor and government all working hard and intelligently and harmoniously together to recapture the prosperity which, as a nation, we have allowed to slip through our fingers." In my judgment this statement is just as accurate today as it was then. We must guard against considering the present improvement in business a promise of automatic prosperity in the future. We must take advantage of this period of increased activity to strengthen our corporation against periods of greatly increased competition which loom on the horizon. We have a lot of hard work ahead of us, but if we become concerned soon enough and roll up our sleeves, our future can still be bright.

It gives me great pleasure to record the election last January of Mr. W. Paul Cooper as President and Chief Operating Officer of the corporation. Mr. Cooper has had a wide variety of responsibilities during his 36 years with Acme-Cleveland, and he fills this new assignment with great competence. At the same time Mr. Robert A. Harvey was elected President of Cleveland Twist Drill, a company with which he has had a distinguished career for the past 36 years.

Finally, I should like to express to Mr. Arthur O. Willey the gratitude of his fellow directors for his wise counsel while he served on the board of the corporation. We wish him much health and happiness in his retirement.



Chairman of the Board

Cleveland, Ohio
December 6, 1972



The setting of a corporate goal: consolidation of advanced technology and research. Under consideration since the combination of National Acme and Cleveland Twist Drill, a consolidated R&D program has become a reality with formation of Acme-Cleveland Development Company. On the site of the new technical center are President W. Paul Cooper, Karl H. Rudolph, a director, and Chairman Arthur S. Armstrong.

Consolidation of Corporate Technical Skills

A new division to consolidate corporate research and development was announced in September. "Iron Age" neatly stated the purpose in saying, "There are things machine tool builders know that cutting-tool makers don't and vice versa. But precious few companies know it all. Acme-Cleveland wants to."

Acme-Cleveland Development Company will combine and expand the advanced technology and research that have been divided among the separate manufacturing divisions. Brought together in a new research center, Acme-Cleveland's technical skills, methodology and equipment can now be concentrated on four primary areas of development: new products, manufacturing

processes, metallurgy and material testing.

As a corporate division, Acme-Cleveland Development Company will not only support the manufacturing divisions, but will also provide outside contract services. Headquarters will be a recently constructed building acquired by Acme-Cleveland in Highland Heights, Ohio, an eastern Cleveland suburb. The 77,000-square-foot facility will be completed and fully equipped early in 1973.

Pictures on this page are representative of the areas on which Acme-Cleveland Development Company will be focusing its engineering, design skills, problem-solving capabilities and services for testing and technical evaluation.

Product development—design, experimentation and prototype construction for new machine tools, loading and unloading devices, cutting tools, tool holders, controls, foundry equipment and projects to customer specifications.



Metallurgy—advanced heat treating technologies, development of improved materials, metal casting problems, evaluation of new metalworking methods.



Testing—destructive and non-destructive testing of Acme-Cleveland products and those of customers and competitors; new materials analysis involving advanced techniques; development of new test methods as required by the problem.



Control circuitry—research and development in electronics, hydraulics, pneumatics and numerical control for application to discrete products, complete production systems and basic manufacturing processes.

Engineering—a staff representing all of the disciplines required to jointly theorize, plan and help implement the concepts emerging in each area of activity.

National Acme

Shortly after fiscal 1972 began, the U.S. market for machine tools started an upward trend. It was a welcome reversal of conditions that had depressed machine tool production for over two years. The effect on Acme-Cleveland's machine tool division was immediate and positive. National Acme's orders booked for 1972 were 60 percent ahead of fiscal 1971. Shipments were up 21 percent compared with last year, and are expected to rise 15 to 20 percent in 1973 with a continuation of the machine tool upswing.

National Acme was prepared to make the most of a revitalized market. Throughout a period of low sales volume and cost reduction, National Acme maintained a commitment to research and product design and development aimed at higher productivity—in its customers' operations and its own. Results of this developmental effort were obvious to visitors at the recent International Machine Tool Show: two high production chucking machines and a new bar machine that is recognized as the most advanced equipment of its type on the market. As the only U.S. multiple-spindle machines displayed at the show, the new models met with considerable interest and the first orders were booked at that time.

The new automatic bar machine, the 1 $\frac{3}{8}$ AG-6, is the product of five years' development. The objective was an advanced generation six-spindle machine tool with features satisfying two key elements of productivity—reduced cycle and setup time. One major factor in the machine's fast cycle time is the electric spindle-stopping clutch designed by National Acme. The electric clutch is compatible with remote control operations and is another step toward programmed machines as an integral part of sophisticated production systems.

National Acme also designed a universal gearbox for the AG-6 to facilitate fast changeover of tooling. This feature can reduce setup time up to 50 percent. For the long-run, one-product user, a simplified gear train is available to provide high-speed production without the added cost of universal gearing.

The RPN-6 and HSC-6 are automatic multiple-spindle chucking machines with work-holding devices for forgings or other pre-formed parts. The RPN-6 can accommodate work pieces up to 6 $\frac{3}{8}$ inches in diameter. It expands the Acme-Gridley line between the 5 $\frac{1}{4}$ -inch and the 8-inch models. The HSC-6 chucker, first introduced several years ago, was redesigned to assure its place as one of the fastest production machines on the market. Spark plug shells, as one example, are turned out one a second. Both chucking machines are designed for totally interchangeable tooling, shorter idle intervals and faster setup than their counterparts.

Reduced noise levels are a feature common to all of the new machines. Much sound has been eliminated by the use of lapped gearing, quieter motors, fiberglass covers and other sound alleviating devices. Heavy emphasis on acoustical engineering anticipated the reduced sound levels required under the Occupational Safety and Health Act (OSHA). Machines now in production at National Acme meet or exceed OSHA standards. The division is also helping customers achieve similar results on older models of National Acme machines in the field.

The Special Machines Division likewise maintained its development pace during the slow market period. While still a comparatively small part of National Acme's total volume, this operating unit has a design-and-build capability increasingly recognized and utilized by high production industries.



National Acme president Charles W. Clark describes features of the AC-6 for directors Ralph M. Besse and Earl P. Schneider.



Above: Potential customers at the International Machine Tool Show were attracted by Acme-Gridley models like the HSC-6 chucker, shown being readied for demonstration.

Left: Field representatives maintain close liaison with customers relying on Acme-Gridley machines for continuous high-volume production.



Left: The versatile Acme-Fette thread rolling head and, below, the new RC-30 Roll/Cut Threading Machine.



Below: The Spira-Loc end mill is demonstrated for directors Raymond E. Channock (l.), Jacob B. Perkins (r.) and Arthur S. Armstrong, chairman.



Customer and sales programs at Cleveland Twist Drill's training center emphasize the metric aspects of new products and services.

A customer's multi-phase operation indicates the range of Cleveland Twist Drill's products and their part in automated production.



Cleveland Twist Drill

Expanded product lines and service contributed to moving Cleveland Twist Drill's USA volume 20 percent ahead of fiscal 1971. Among new products introduced was the Spira-Loc replaceable carbide blade end mill. Adding to expansion of Cleveland's more than 40,000 types and sizes of cutting and threading tools was a heavy emphasis on 24-hour fast delivery service to cover a wider range of metric drills, taps and reamers.

The new Spira-Loc end mill is a unique cutting tool that should find increased usefulness in aerospace and similar high technology applications, ranging from aluminum to titanium and other hard-to-machine materials. The Spira-Loc design, featuring replaceable helical solid carbide blades, offers added productivity through higher machining rates, precise diameter control and tool maintenance savings.

Cleveland Twist Drill now produces the widest range of metric size cutting tools in the United States. A continuing program to anticipate and meet industry's demand for metric tooling was launched this past year. Complete size ranges of metric and intermediate diameter drills, reamers and taps are available from stock or for 24-hour delivery. This service is backed by the ability to produce, in minutes, computerized manufacturing drawings for metric thread forms. Coupled with heavy emphasis on distributor training programs in metric tooling, market penetration in this specialized area has been dramatic, and the outlook for expansion of this service concept is good.

Cleveland Twist Drill's computer-linked central distribution center in Cleveland continues to add to operating efficiency and the effectiveness of customer service. In 1971

the new techniques employed within the central distribution center and between the center and its regional stockrooms eliminated the need for a Los Angeles stockroom. In 1972 the same techniques led to elimination of the Detroit stockroom. The video data terminal order entry system, linked directly to a central computer, enables both the Los Angeles and Detroit sales offices to maintain highly effective service with orders handled from the central distribution center.

Cleveland Twist Drill's Threading Tools Division continued its steady growth in 1972. Important new distributors were added to give wider coverage for the division's broad threading tool product lines in the industrial marketplace.

Advanced thread rolling technology has increased the range of applications for the Acme-Fette end-feeding thread rolling head. New capabilities developed for this product include splining, knurling, swaging and other non-threading operations, besides the rolling of many complex thread formations.

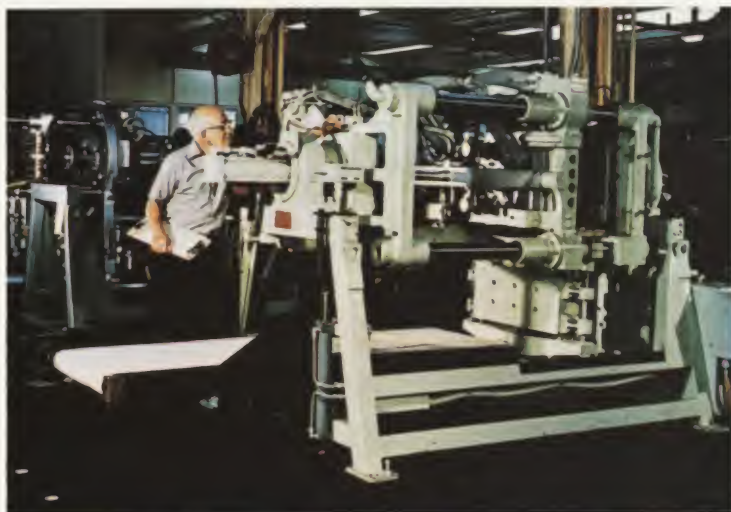
At the 1972 International Machine Tool Show, the Threading Tools Division introduced a medium-range production machine that can use either the Acme-Fette head for thread rolling or other die heads for thread cutting. Cleveland's Model RC-30 Roll/Cut Threading Machine is designed and manufactured by the National Acme Division and sold by Cleveland Twist Drill, an exchange of technology and marketing know-how in keeping with the corporate goal of providing production systems for industry.

Information about Cleveland Twist Drill's subsidiaries outside the United States is covered in the international section of this report.

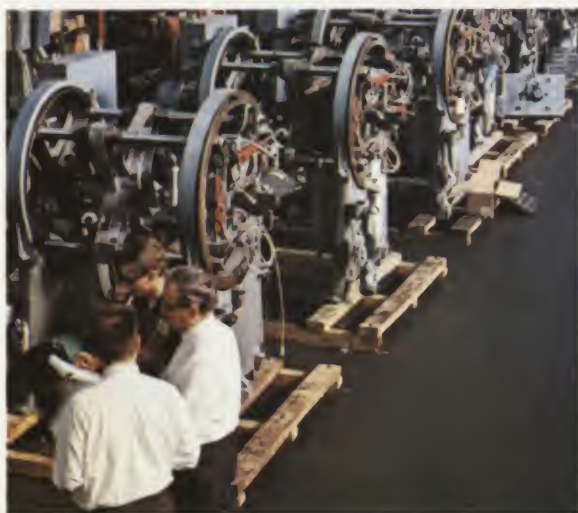
Directors Carleton Blunt and John S. Prescott examine the Saturn mixer with John C. Stites, a director and special assistant to the chairman.



The new fully automatic U-900 shell core mold machine.



Direct conversion of engineering drawing into the finished pattern for a mold at Shalco's Automotive Pattern Company subsidiary.



U-180 shell core blower machines near completion on Shalco's Cleveland production line.

Shalco Systems

The high cost of meeting pollution control standards, difficulties in attracting labor and the inefficiencies of outmoded equipment have emphasized the foundry industry's need for Shalco products. Foundries that continue to be competitive are the larger operations—100 or more employees—which are taking a positive approach to production systems, pollution control and comfort and safety of personnel. This is the market to which the Shalco Systems Division has geared much of its product development and technology. Emphasis is on Shalco's equipment for hot box core forming, the currently predominant method employing thermosetting materials; on cold box equipment for forming core molds without heat; and on turnkey systems to equip a foundry completely from molding sand preparation to storage of the finished casting.

Against this background, Shalco Systems' USA sales for 1972 were 53 percent ahead of 1971.

Shalco's turnkey work to date has involved engineering for the full production line and supplying that portion of the equipment available from its lines of sand preparation and molding machinery. Turnkey proposals with Shalco as prime contractor for the complete facility are under study by customers abroad.

Improvements engineered into recently introduced products for both hot and cold box core molding stress safety, reduced exposure to pollutants and higher production rates. An example is the fully automatic U-900 shell core mold machine. This model

and the larger 321 work by remote control and are self-loading. One operator is able to run a number of these machines simultaneously. He is not exposed to the mold box heater plate or fumes as is the case when removing hot core molds by hand.

Elimination of safety hazards, discomfort and core distortion associated with heat are strong advantages in favor of cold box core molding. In this method, gas at ambient temperature is used to set and cure resinated sand. Shalco sees cold box core molding as the ascendant technique and has led the way in designing equipment for this method. The 4-103 and 4-105 cold box machines are prominent among a new generation of Shalco equipment brought to market in response to present demands for productivity and in anticipation of technological demands some years ahead.

Of particular importance is the Saturn continuous sand mixer. Its job is to blend catalysts, binders and sand for coremaking, primarily for cold box processes. The Saturn mixer employs what "Modern Castings" describes as a "revolutionary new spinning disc principle." Catalyst and binder flow into a spinning disc-shaped cup which causes the liquids to be forced outward in an atomized spray through a falling circular curtain of sand. The compound emerges loose and easy to work, not compacted by mixing blades or the action of fast-setting ingredients. Only 32 inches high, the Saturn mixer can produce 10 tons of thoroughly coated sand an hour and can be positioned with great flexibility.

Namco Controls

Originally Namco Controls was a department of The National Acme Company manufacturing machine operation recording devices and other controls for Acme machine tools. Today this portion of Namco's volume is less than four percent. It is now a separate operating unit of Acme-Cleveland producing input and output controls with a host of applications in manufacturing, materials handling and process control. Sales of Namco Controls' products for fiscal 1972 were 14 percent ahead of 1971.

Input devices made by Namco include limit switches, proximity switches and panel switches of the type displayed on a machine operator's control console. Limit switch product development has focused on severe environment applications. Use of new metals, lubricants and gasket materials resulted in switches operating routinely in the 300-400 degree temperatures encountered, for example, in steam, gas and nuclear-powered generators. Similar research produced new limit switches designed for exposure to corrosive agents like salt water. These models also feature latching mechanisms to hold the contacts securely open or closed against high impact conditions such as those encountered in marine and military applications.

New radio-frequency proximity switches introduced in 1972 were the Mark III Series electronic "fail-safe" models featuring the latest miniaturized circuitry. The fail-safe switch automatically reverts to the "off" mode in the event of sensor damage, short or

open circuit, or oscillator failure. The controlled process or operation under way stops immediately so corrective action can be taken.

Another important product line introduced was the Maglock magnet or ferrous actuated proximity switch. The Maglock proximity switch features a hermetically sealed reed switching mechanism designed for 100 million operations. Depending on the model, it is actuated when a magnet or ferrous object is moved within range of the sensor. No physical contact is made. Maglock switches provide a broadened range of lower cost non-contact sensing devices complementary to Namco Controls' radio-frequency proximity switches.

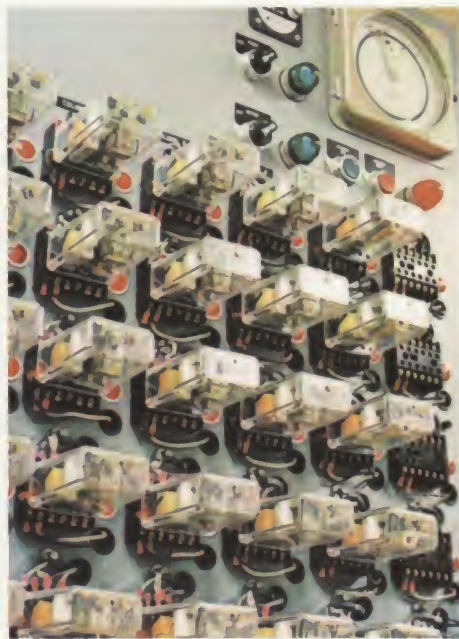
Among Namco's output controls, there were notable gains for solenoids, the inconspicuous but critical devices that cause a mechanical motion when prompted by an electrical, pneumatic or hydraulic signal. Important gains were made last year following the introduction of a line of small high quality solenoids, and design and assembly improvements in the higher-capacity models. Solenoids in the new line work in the range of three to eight pounds of force. This compares with 20 to 25 pounds produced by the larger models. Introduction of the smaller models opened further opportunities in the markets for hydraulic and pneumatic valves, timers, packaging and office equipment, and other industrial applications employing high speeds and frequencies.

Namco solenoids are critical components in the interrupters used by utilities to protect transformers against power surges.





Directors Robert C. Ochs and Raymond E. Channock with the Mark III proximity switch and other Namco Controls products.



Left and two above: Solid state circuitry and assembly of Namco Controls proximity switches are checked by many hours of actual operation (top) as the final phase of quality control.

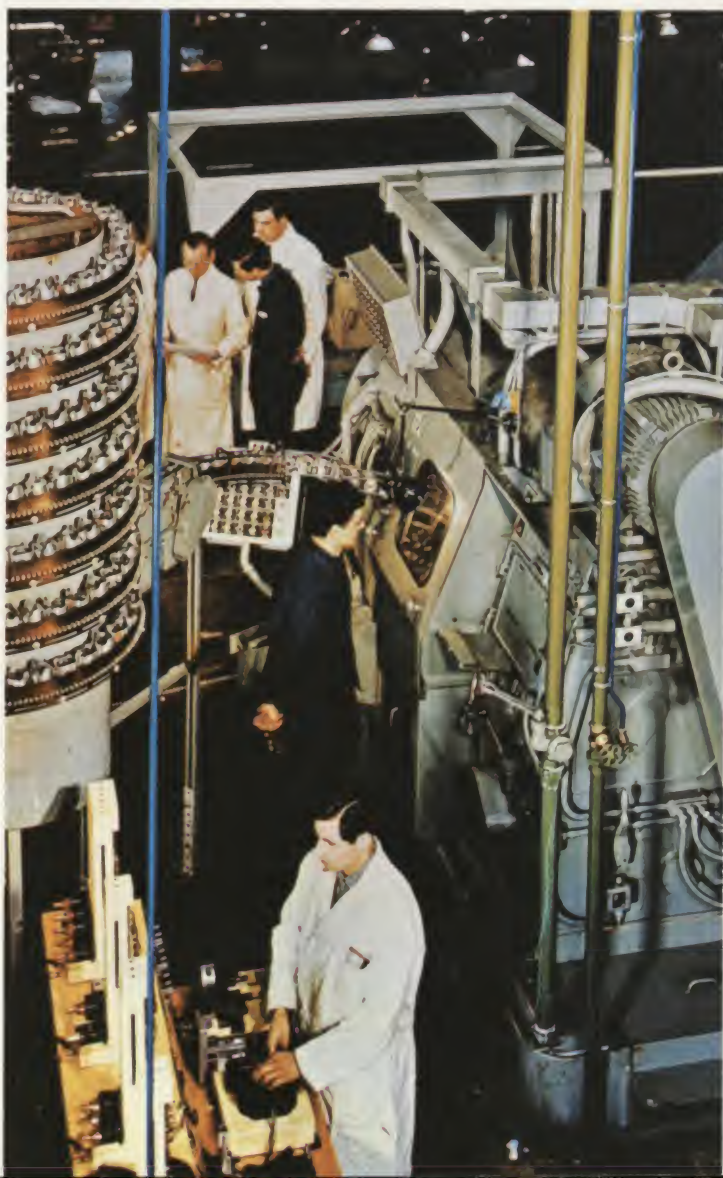
Management conference at Maastricht, The Netherlands, involves A. Langeraar, chief executive officer, Cleveland Twist Drill Limited-Europe; Alan M. Scott, general manager, Cleveland Twist Drill Nederland N.V.; and Robert A. Harvey, president of Cleveland Twist Drill.

On the manufacturing floor at Peterhead, Scotland, a production team concentrates on taper shank drills.



Shalco products at the FONDEX 72 Foundry Show in Brno, Czechoslovakia won a gold medal for foundry technology.

Acme-Gridleys, like this one on an engine piston line, are an integral part of high-volume automotive production in Italy.



International Operations

The pattern of Acme-Cleveland's international business last year reflects improving economies on this side of the Atlantic, the lingering effects of Western Europe's recession, and the continuing ambition of the Eastern Bloc countries to modernize their industry with the aid of imported technology and equipment.

In expendable tools, both Cleveland Twist Drill Canada Ltd. and Herramientas Cleveland, S.A. in Mexico reported higher volume for 1972.

Cleveland Twist Drill Canada increased its sales through emphasis on threading tools and the introduction of a variety of standard taps in addition to the special taps previously produced.

Herramientas Cleveland, S.A., starting business in 1968, now has an important market position in tool bits and drills. Reamers and milling cutters have also met with good acceptance. The Mexican subsidiary added new items to each of these cutting tool lines last year and increased production and sale of specials such as carbide tipped drills and reamers.

The recession in Western Europe, coupled with a rash of work stoppages plaguing the United Kingdom, resulted in substantially reduced volume and minimal earnings in 1972 for Cleveland Twist Drill Limited.

Cleveland Twist Drill Nederland reported unprofitable operations for this period. Combining to bring about these results were heavy startup costs, the business recession and a work stoppage at Cleveland Twist Drill Limited which slowed shipments to Maastricht.

There are, however, signs of improvement in the economic conditions that accounted for low usage levels throughout the cutting tool industry in the United Kingdom and Western Europe.

Volume held steady for National Acme's machine tool sales subsidiary and licensees abroad despite the poor market for capital goods in Western Europe. There was a marked increase in orders from Eastern Bloc countries including Russia. In consequence, Namco Machinery Limited and the company's licensees anticipate a higher level of business in 1973 as orders from EEC countries recover and are added to those from Eastern Europe.

In Japan, National Acme renewed its licensing agreement for a ten year period with Mitsubishi Heavy Industries, Ltd. for the production and sale of machine tools under the Mitsubishi Acme-Gridley name.

International sales accounted for more than 23 percent of Shalco Systems' volume last year. Shalco Systems, having consolidated its position in both the western and eastern European markets, anticipates further gains in business overseas.

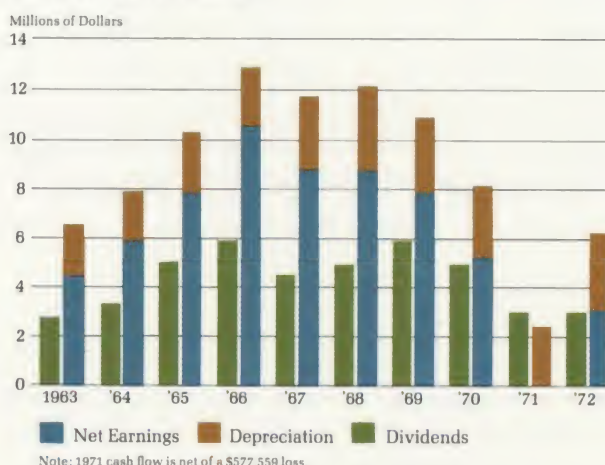
A new subsidiary, established last year through acquisition, has become the West German sales headquarters for equipment manufactured by Shalco in the U.S. and Europe. Shalco Systems Acme-Cleveland GmbH, Stadt Allendorf, West Germany, will also design and manufacture pattern equipment and fixtures for sale in all European countries. These functions will be relocated in a new building now under construction in Homberg, West Germany.

Shalco Systems also concluded a license agreement for the manufacture of a portion of its equipment in South America. Roterid Companhia Mecanica, Sao Paulo, Brazil, introduced its first Shalco product, a manual shell core blower, at the Brazil Export 72 exhibition. Orders were closed for 20 of the machines for immediate delivery and another 30 for shipment within 90 days.

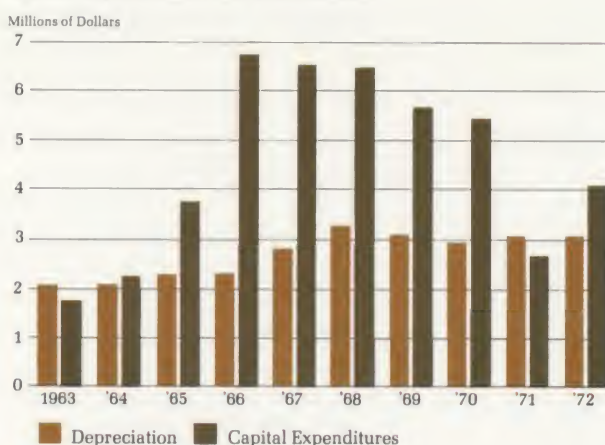


Precision grinding of cutting tools at Herramientas Cleveland S.A. in Mexico.

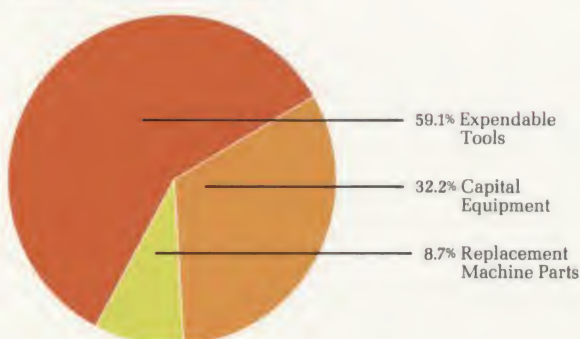
Cash Flow and Dividends



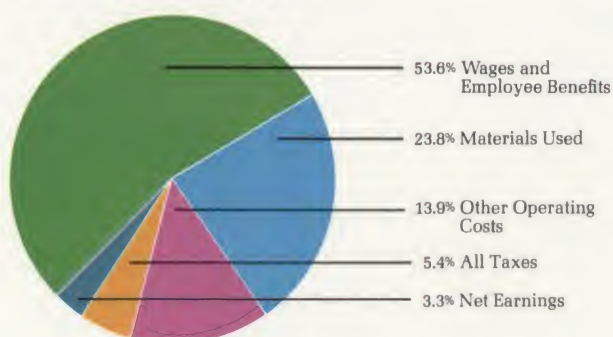
Capital Expenditures and Depreciation



Source of 1972 Sales Dollar



Distribution of 1972 Sales Dollar



Financial Review

Acme-Cleveland's financial position remained strong in 1972 and provides a base for growth through internal programs and acquisitions. Substantial bank credit lines continue to be available.

Sales and Earnings — Acme-Cleveland's consolidated net sales in 1972 were \$96,001,000, compared with \$81,358,000 the year before, or an 18 percent increase. Earnings were \$3,178,000, compared with a loss of \$578,000 in 1971.

Capital Expenditures — Expenditures for capital assets in fiscal year 1972 amounted to \$4,090,000, while depreciation totaled \$3,046,000. Capital expenditures and depreciation in fiscal 1971 were, respectively, \$2,667,000 and \$3,045,000. A 77,000-square-foot building on five acres of land was purchased in suburban Cleveland for Acme-Cleveland Development Company by assuming Ohio Industrial Bond lease payments. Also, a 140,000-square-foot building and 14 acres of land were purchased in Cynthiana, Kentucky. A total of \$4,900,000 in capital expenditures is authorized for 1973 largely for new production equipment to increase the productivity of the company's manufacturing plants in all locations.

Debt — A lease purchase agreement for the New Acme-Cleveland Development Company building represented the only change in the company's various financing arrangements in the United States or in other countries. The principal long-term debt consists of a \$15,000,000 revolving credit agreement with a group of banks which will be converted at September 30, 1973 to a term loan, repayable over a four-year period. Long-term debt was reduced \$5,459,000 net to \$8,829,000 during 1972. Other than short-

term borrowings under lines of credit abroad, no additional financing is currently planned.

Acme-Cleveland operations outside the United States make major use of local financing, in local currencies, to help neutralize the effect of currency exchange fluctuations. Total borrowings at September 30th were \$2,302,000.

Federal Tax Obligations — Federal income tax returns through 1969 have been examined and settled, and it is believed that adequate provision for income taxes has been made for all open years.

A domestic international sales corporation (DISC) was formed to benefit from the government's tax deferral program designed to stimulate export shipments, and all export sales were channeled through it beginning March, 1972. The DISC will definitely help Acme-Cleveland products to be more competitive in foreign markets, and it is hoped this is only the first step of a U.S. government-business partnership to create more U.S. jobs.

The provision of \$2,879,000 for 1972 income tax has been reduced by investment tax credits and tax deferment under the DISC program amounting to \$180,000.



President W. Paul Cooper confers with director Stephen M. DuBrul, Jr. at Lazard Frères & Co. in New York.

Employee Wages and Benefits — Wages and the costs of employee benefits, including pensions, Social Security payments, hospitalization and medical insurance, vacation plans, group life insurance and other benefits for the years 1972 and 1971 were as follows:

	1972	1971
Total wages	<u>\$40,528,000</u>	<u>\$35,884,000</u>
Pensions	\$ 1,595,000	\$ 1,373,000
Social Security taxes	2,072,000	1,841,000
Hospitalization and medical insurance	2,262,000	1,950,000
Other employee benefits	<u>5,043,000</u>	<u>4,071,000</u>
Total benefits	<u>\$10,972,000</u>	<u>\$ 9,235,000</u>

Pricing — During fiscal 1972, small price increases on certain of the company's products were put into effect in compliance with Price Commission regulations. Some price reductions also occurred to meet competitive conditions. Regardless of justifiable and allowable price adjustments to absorb increased labor and material costs, conditions in the marketplace were such that price increases for most of the company's products could not be made.

Ten Year Statistical Review

ACME-CLEVELAND CORPORATION AND SUBSIDIARIES

	1972	1971	1970
Sales and Earnings			
Net Sales	\$96,001,120	\$81,358,419	\$104,631,272
Earnings (Loss) before Taxes	6,056,604	(1,007,559)	9,103,766
Income Taxes	2,879,000	(430,000)	4,570,000
Net Earnings (Loss)	3,177,604	(577,559)	5,220,766*
Net Earnings to Net Sales	3.3%	—	5.0%*
Earnings (Loss) per Share83	(.15)	1.36*
Dividends Paid	3,075,786	3,075,626	4,996,552
Other Financial Information			
Current Assets	\$57,493,398	\$58,544,616	\$ 61,186,389
Current Liabilities	15,768,995	11,164,606	14,014,431
Working Capital	41,724,403	47,380,010	47,171,958
Shareholders' Equity (Net Worth)	63,600,922	63,499,104	67,147,289
Shareholders' Equity per Share	16.54	16.52	17.47
Property, Plant and Equipment—Net	29,863,420	29,295,784	30,052,809
Capital Additions	4,089,657	2,666,573	5,422,425
Depreciation	3,046,095	3,044,998	2,930,853
General Information			
Average number of Shares Outstanding	3,844,732	3,844,547	3,843,427
Number of Shareholders	7,632	7,946	8,033
Number of Employees—Year-End	4,912	4,759	5,451

*Includes extraordinary credits of \$687,000 or \$.18 per share.

The 1969 figures are for the 12 months ended September 30, which includes the transitional 3-month period ending December 31, 1968, which was previously reported. All figures in this report are combined to reflect the merger of The Cleveland Twist Drill Company and National Acme Company in 1968 on a pooling of interests basis. The 1968 figures are for the 12 months ended December 31. Figures for 1967 and prior years are the result of combining the 12 months ended December 31, for National Acme Company with the 12 months ended September 30, for The Cleveland Twist Drill Company.

1969	1968	1967	1966	1965	1964	1963
\$109,827,768	\$109,390,676	\$108,470,330	\$106,046,914	\$85,845,324	\$71,939,581	\$62,447,516
16,207,859	17,629,824	17,304,475	19,861,715	14,707,327	10,964,678	9,143,806
8,290,000	8,779,382	8,002,167	9,177,619	6,749,635	5,040,000	4,652,000
7,917,859	8,850,442	8,997,963	10,684,096	7,957,692	5,924,678	4,491,806
7.2%	8.1%	8.3%	10.1%	9.3%	8.2%	7.2%
2.05	2.22	2.25	2.67	2.01	1.51	1.15
5,949,069	4,941,590	4,514,617	5,994,599	5,087,693	3,450,188	2,815,717
\$ 58,449,567	\$ 58,726,106	\$ 58,532,750	\$ 57,996,777	\$52,980,417	\$48,876,201	\$46,331,922
20,194,447	23,612,285	16,412,771	16,383,332	10,449,038	8,897,053	8,458,586
38,255,120	35,113,821	42,119,979	41,613,445	42,531,379	39,979,148	37,873,336
66,909,765	64,801,836	66,403,215	61,545,446	56,802,355	53,468,477	50,830,193
17.41	16.91	16.57	15.41	14.34	13.65	13.02
27,731,116	25,886,891	22,999,108	18,462,677	13,731,357	12,399,017	12,174,116
5,681,331	6,468,505	6,517,241	6,712,255	3,740,508	2,209,154	1,743,344
3,051,725	3,276,479	2,827,291	2,278,132	2,260,767	2,060,937	2,038,064
3,853,801	3,983,985	4,004,908	3,994,938	3,960,358	3,917,470	3,902,794
8,097	6,883	6,979	6,697	6,187	5,534	5,471
5,402	5,414	5,383	5,121	4,598	4,214	3,854

Statement of Consolidated Earnings

ACME-CLEVELAND CORPORATION AND SUBSIDIARIES

	YEAR ENDED SEPTEMBER 30	
	1972	1971
Revenues:		
Net sales	\$96,001,120	\$81,358,419
Royalty income	1,176,858	1,091,462
Other income	942,001	799,795
	<u>98,119,979</u>	<u>83,249,676</u>
Cost and expenses:		
Cost of products sold	68,541,413	61,442,591
Selling, administrative and general expenses	19,503,394	18,295,225
Depreciation — Note A	3,046,095	3,044,998
Interest	782,509	1,069,608
Other	189,964	404,813
	<u>92,063,375</u>	<u>84,257,235</u>
Earnings (Loss) Before Income Taxes	6,056,604	(1,007,559)
Income taxes (credit):		
Currently payable	2,557,000	(669,000)
Deferred — Note C	322,000	239,000
	<u>2,879,000</u>	<u>(430,000)</u>
Net Earnings (Loss)	\$ 3,177,604	\$ (577,559)
Net earnings (loss) per Common Share — Note F	<u><u>\$.83</u></u>	<u><u>\$(.15)</u></u>

Statement of Consolidated Shareholders' Equity

ACME-CLEVELAND CORPORATION AND SUBSIDIARIES

	Common Shares		Other Capital	Retained Earnings	Total
	Shares	Amount			
Balance at October 1, 1970	3,843,932	\$3,843,932	\$3,289,574	\$60,013,783	\$67,147,289
Net loss for the year				(577,559)	(577,559)
Cash dividends, quarterly at \$.20 a share				(3,075,626)	(3,075,626)
Sale of Common Shares under option plan	800	800	4,200		5,000
Balance at September 30, 1971	3,844,732	3,844,732	3,293,774	56,360,598	63,499,104
Net earnings for the year				3,177,604	3,177,604
Cash dividends, quarterly at \$.20 a share				(3,075,786)	(3,075,786)
Balance at September 30, 1972	<u>3,844,732</u>	<u>\$3,844,732</u>	<u>\$3,293,774</u>	<u>\$56,462,416</u>	<u>\$63,600,922</u>

See notes to consolidated financial statements.

Statement of Consolidated Financial Position

ACME-CLEVELAND CORPORATION AND SUBSIDIARIES

	SEPTEMBER 30	
	1972	1971
Current Assets		
Cash	\$ 1,984,839	\$ 3,820,650
Trade receivables:		
Accounts	14,570,202	13,250,431
Notes and installment contracts including amounts due beyond one year (1972 — \$1,765,290; 1971 — \$1,632,188)	3,414,558	3,311,193
	17,984,760	16,561,624
Refundable federal income tax	—0—	833,000
Inventories — Note A:		
Work in process and finished products	32,225,978	32,083,627
Raw materials and supplies	5,297,821	5,245,715
	37,523,799	37,329,342
Total Current Assets	57,493,398	58,544,616
Less Current Liabilities		
Notes payable to banks	1,027,916	525,692
Notes payable to employees	1,054,950	1,210,930
Accounts payable and accrued expenses	6,489,784	5,714,703
Salaries, wages, other compensation and payroll taxes	4,163,170	3,149,636
Income taxes	2,663,756	406,045
Current portion of long-term debt	369,419	157,600
Total Current Liabilities	15,768,995	11,164,606
Working Capital	41,724,403	47,380,010
Property, Plant and Equipment — on the basis of cost		
Land	2,306,663	2,539,777
Buildings	18,742,295	16,952,848
Machinery and equipment	45,347,589	43,862,675
	66,396,547	63,355,300
Less allowances for depreciation	36,533,127	34,059,516
	29,863,420	29,295,784
Other Assets	2,232,698	2,180,510
	73,820,521	78,856,304
Long-Term Liabilities		
Long-term debt — Note B	8,829,364	14,288,400
Deferred federal income taxes — Note C	1,390,235	1,068,800
	10,219,599	15,357,200
Net Assets—Representing Shareholders' Equity	\$63,600,922	\$63,499,104
Shareholders' Equity		
Serial Preferred Shares, without par value:		
Authorized — 1,000,000 shares — none issued		
Common Shares, par value \$1 per share — Note D:		
Authorized — 10,000,000 shares		
Issued and outstanding	\$ 3,844,732	\$ 3,844,732
Other capital	3,293,774	3,293,774
Retained earnings — Note B	56,462,416	56,360,598
	\$63,600,922	\$63,499,104

See notes to consolidated financial statements.

Statement of Changes in Consolidated Financial Position

ACME-CLEVELAND CORPORATION AND SUBSIDIARIES

	YEAR ENDED SEPTEMBER 30	
Source of Funds	1972	1971
From operations:		
Net earnings (loss)	\$ 3,177,604	\$ (577,559)
Items not requiring outlay of working capital:		
Depreciation	3,046,095	3,044,998
Deferred federal income taxes	322,000	239,000
Total from Operations	6,545,699	2,706,439
Disposals of property, plant and equipment	475,926	377,652
Increase in long-term debt	1,205,248	2,427,400
Other	—0—	438,760
	8,226,873	5,950,251
Application of Funds		
Dividends paid	3,075,786	3,075,626
Additions to property, plant and equipment	4,089,657	2,666,573
Reduction of long-term debt	6,664,284	—0—
Other	52,753	—0—
	13,882,480	5,742,199
(Decrease) Increase in Working Capital	<u><u>\$(5,655,607)</u></u>	<u><u>\$ 208,052</u></u>
Changes in the components of working capital:		
Current assets — increase (decrease):		
Cash	\$(1,835,811)	\$ 558,748
Trade notes and accounts receivable	1,423,136	(1,803,272)
Refundable federal income tax	(833,000)	833,000
Inventories	194,457	(2,230,249)
Current liabilities — (increase) decrease:		
Notes payable to banks	(502,224)	652,695
Notes payable to employees	155,980	70,190
Accounts payable and accrued expenses	(775,081)	516,936
Salaries, wages, other compensation and payroll taxes	(1,013,534)	1,171,342
Income taxes	(2,257,711)	596,262
Current portion of long-term debt	(211,819)	(157,600)
(Decrease) Increase in Working Capital	<u><u>\$(5,655,607)</u></u>	<u><u>\$ 208,052</u></u>

Notes to Consolidated Financial Statements

ACME-CLEVELAND CORPORATION AND SUBSIDIARIES

September 30, 1972 and 1971

The 1971 financial statements have been reclassified in certain areas to conform to the 1972 presentation.

Note A—Accounting Policies and Practices

The Acme-Cleveland Corporation and subsidiaries' accounting and reporting policies conform to generally accepted accounting principles and to industry practices on a consistent basis between years. Significant accounting policies and practices, for which alternative practices are available, are described below.

CONSOLIDATION — The consolidated financial statements include the accounts of the Corporation and all of its subsidiaries. Upon consolidation, all significant inter-company items and transactions are eliminated. The accounts of foreign subsidiaries are translated at appropriate rates of exchange, and the resulting gains and losses (not material in amount) are reflected in operations. Net assets of the foreign subsidiaries approximated \$9,063,000 at September 30, 1972 and \$8,918,000 at September 30, 1971.

TRADE RECEIVABLES — In accordance with industry practice, installment contracts receivable due beyond one year are classified as current assets.

INVENTORIES — Inventories are priced at cost (principally last-in, first-out method of determination) not in excess of replacement market. Such valuations were less than replacement cost of the inventories by approximately \$10,822,000 at September 30, 1972 and \$9,997,000 at September 30, 1971.

DEPRECIATION — Depreciation of property, plant and equipment is computed by the straight-line method based upon the estimated useful lives of the assets.

PENSION EXPENSE — Annual pension expense provides for normal cost and amortization of prior service costs over periods of 30 to 40 years.

RESEARCH AND DEVELOPMENT — Research and development expenditures are charged to operations as incurred.

INVESTMENT TAX CREDIT — The investment tax credit of \$116,000 in 1972 is accounted for by the flow-through method.

Note B—Long-Term Debt

	SEPTEMBER 30	
	1972	1971
Liability to banks under revolving credit agreement	\$6,500,000	\$12,800,000
Lease obligation to the State of Ohio requiring payments (including interest averaging 6%) of approximately \$158,000 annually through December 1, 1980	1,002,316	—0—
Various debt arrangements of foreign subsidiaries maturing at various dates to 1981 and bearing interest rates of 6½% to 8¼%	980,590	1,138,400
Other notes payable at various dates to 1977, and bearing interest rates of 5% to 6%	346,458	350,000
	<u>\$8,829,364</u>	<u>\$14,288,400</u>

Under a revolving credit agreement with a group of banks which terminates September 30, 1973, the Corporation may borrow, at the prime interest rate then in effect, up to \$15,000,000. A commitment fee is also payable quarterly at the rate of ½% per annum on the average daily amount of the unborrowed portion of the \$15,000,000. It is the Corporation's intention to convert each bank's revolving credit to a term loan, which is repayable in sixteen equal quarterly installments beginning 90 days after such conversion. The credit agreement contains restrictive covenants, certain of which cover the maintenance of working capital and limit capital distributions (as defined) including the payment of cash dividends. Retained earnings of approximately \$1,350,000 are available for the payment of cash dividends at September 30, 1972.

Note C—Deferred Federal Income Taxes

Deferred taxes arise principally from timing differences between financial and tax accounting for depreciation.

Note D—Stock Options

Stock option plans authorize the issuance of Common Shares to key employees at not less than the market price on dates of grant. The options become exercisable over a period of five years, beginning one year after date of grant. At September 30, 1972, options for 32,800 shares (29,087 at September 30, 1971) were exercisable and 106,000 shares (104,050 shares at September 30, 1971) were available for future options.

A summary of the changes in outstanding stock options follows:

	Shares	Option Price	
		Per Share	Aggregate
Outstanding at October 1, 1970	104,036	\$ 6.25 to \$26.34	\$2,369,118
Exercised	800	6.25	5,000
Cancelled or expired	36,486	17.50 to 26.34	782,837
Outstanding at September 30, 1971	66,750	21.25 to 26.34	1,581,281
Cancelled or expired	11,950	21.25 to 26.34	268,269
Outstanding at September 30, 1972	54,800	23.38 to 26.34	1,313,012

Note E—Pension and Profit-Sharing Plans

The Corporation and its subsidiaries have several pension plans covering substantially all employees. The total pension expense was approximately \$1,595,000 for 1972 and \$1,373,000 for 1971. The Corporation's policy is to fund pension cost accrued. The actuarially computed value of vested benefits for certain plans as of their respective anniversary dates exceeded their pension funds by approximately \$2,956,000 at September 30, 1972.

The Corporation has several employee profit-sharing plans in effect. Amounts contributed under such plans are based upon the annual earnings of the respective operating units. In 1972, such contributions amounted to \$510,000.

Note F—Earnings Per Share

Net earnings per Common Share is based on the weighted average number of Common Shares outstanding. The inclusion of stock options (common stock equivalents) would be anti-dilutive.

Accountants' Report

Board of Directors
Acme-Cleveland Corporation
Cleveland, Ohio

We have examined the statement of consolidated financial position of Acme-Cleveland Corporation and subsidiaries as of September 30, 1972 and 1971, and the related statements of consolidated earnings, shareholders' equity, and changes in financial position for the years then ended. Our examinations were made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying

statements identified above present fairly the consolidated financial position of Acme-Cleveland Corporation and subsidiaries at September 30, 1972 and 1971, and the consolidated results of their operations, and changes in shareholders' equity and financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

ERNST & ERNST

Cleveland, Ohio
November 22, 1972

Acme-Cleveland Corporation and Subsidiaries

Board of Directors

Arthur S. Armstrong
*Chairman of the Board and
Chief Executive Officer*

Ralph M. Besse
*Partner—Squire, Sanders
& Dempsey*

Carleton Blunt
*Counsel to Bell, Boyd, Lloyd,
Haddad & Burns, Chicago*

Raymond E. Channock
*Consultant and formerly
President, Acme-Cleveland
Corporation*

Charles W. Clark
Vice President

W. Paul Cooper
*President and Chief Operating
Officer*

Stephen M. DuBrul, Jr.
*Partner—Lazard Freres & Co.
New York*

Robert C. Ochs
*Director of Engineering, Truck
Components Group,
Eaton Corporation*

Jacob B. Perkins
*President, The Hill Acme
Company*

John S. Prescott
*Retired; formerly Senior Vice
President, The Sherwin-Williams
Company*

Karl H. Rudolph
*President, The Cleveland Electric
Illuminating Company*

Earl P. Schneider
*Partner—Thompson, Hine
and Flory*

John C. Stites
*Special Assistant to the
Chairman of the Board*

Officers

Arthur S. Armstrong
*Chairman of the Board and
Chief Executive Officer*

W. Paul Cooper
*President and Chief Operating
Officer*

Charles W. Clark
Vice President

Herbert von Wolff
Vice President

Thomas M. Skove
Treasurer

Henry R. Hatch III
Secretary

Lawrence R. Cowin, Jr.
Controller

Robert W. Gillespie
*Assistant Secretary and
Assistant Treasurer*

James M. Tompkins
Assistant Controller

Leonard W. Schiemann
Assistant Treasurer

General Counsel

Thompson, Hine and Flory,
Cleveland

Auditors

Ernst & Ernst, Cleveland

Transfer Agents and Registrars

The Cleveland Trust Company
Bankers Trust Company,
New York

Listing

Acme-Cleveland Corporation
common shares are listed on the
New York Stock Exchange under
the ticker symbol AMT.

Operations

NATIONAL ACME DIVISION

Machine Tools and Special
Machines
Cleveland, Ohio

Namco Machinery Limited
Luton, England

Machine Tool Licensees:

Herbert—B.S.A. Limited
Birmingham, England

Pittler Maschinenfabrik A.G.
Frankfurt/Main, West Germany

Mitsubishi Heavy Industries, Ltd.
Tokyo, Japan

CLEVELAND TWIST DRILL COMPANY

Cutting and Threading Tools
Division
Cleveland, Ohio

Bay State Manufacturing Plant
Mansfield, Massachusetts

Spira-Loc Manufacturing Plant
Kent, Washington

Cleveland Twist Drill
Canada Ltd.

Rexdale (Toronto), Ontario, Canada

Cleveland Twist Drill Limited
Peterhead and Glasgow, Scotland

Cleveland Twist Drill

Nederland N.V.

Maastricht, The Netherlands

Herramientas Cleveland S.A.
Pachuca, Mexico

SHALCO SYSTEMS DIVISION

Foundry Systems and Equipment
Cleveland, Ohio; Kewanee, Illinois;
Port Huron, Michigan

Automotive Pattern Company
Detroit, Michigan

Shalco Systems—

Acme-Cleveland GmbH
Stadt Allendorf, West Germany

Foundry Equipment Licensee:
Roterid Companhia Mecanica
Sao Paulo, Brazil

NAMCO CONTROLS DIVISION

Electrical Controls
Cleveland and Jefferson, Ohio

Electrical Controls Licensees:

Herbert Controls &
Instruments, Ltd.

Letchworth, Hertfordshire, England

Fritz Dienes GmbH
(Switches only)

Muhlheim, West Germany

ACME-CLEVELAND DEVELOPMENT COMPANY

Highland Heights, Ohio

OTHER FACILITIES

Cynthiana Manufacturing Plant
Cynthiana, Kentucky

Annual meeting of shareholders

The annual meeting will be held on January 25, 1973.
Shareholders of record on December 8, 1972
will be entitled to vote. The notice, proxy statement
and proxy will be mailed to shareholders on
or about December 26, 1972.

 **ACME-CLEVELAND CORPORATION**
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